

Appl. No. 10/719,971
Response Dated January 13, 2006
Reply to Office action of November 8, 2005

132669-1

REMARKS

Claims 1-26 are pending in the above-identified patent application. Previously withdrawn claims 27-80 have been canceled. Claims 1-26 have been rejected.

Claims 1-8, 10-14, 17-22, 24 and 25 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Mansky (US 2003/0101006). Applicant respectfully traverses the rejection.

Claim 1, from which claims 2-8, 10-14, 17-22, 24 and 25 depend, recites a miniaturized sensor device that includes, among other things, "a sensing layer disposed directly or indirectly adjacent to the thin film membrane". In describing the claimed sensing layer, applicant states that "the thin film or nanoparticle layer 22 is nano-structured ... such that heat propagates in the z-direction, to and from the plurality of thin film heater/thermometers 20, and not into the surrounding environment....The thin film or nanoparticle layer 22 acts as an interface between a substance to be detected, present in one or both of the cells 18, and the sensor device 10." (Specification, pages 11-12).

The Office action indicates that Mansky discloses a miniaturized sensor device that includes, among other things, a thin film membrane 94, a heater/thermometer 100, a frame 92, a cell 96, a thin film layer 95, and a sensing layer 90. Applicant respectfully submits that at least the sensing layer 90 is mischaracterized.

In paragraph [0188], Mansky's describes element 90 to be a thin film sample, and the description of the thin film sample 90 is illuminating. In paragraph [0185], Mansky discusses thermal analysis. Specifically, Mansky states "In many cases for thermal analysis, it is important that the sample being analyzed is thermally isolated from its environment to a large degree." Mansky follows up in paragraph [0186] by stating that "Thermal isolation of small-area thin film samples may be most easily achieved by using a thin film of low thermal conductivity material to support the sample, where the support's thickness is comparable to or less than that of the sample."

It is clear from Mansky that the thin film sample 90 is not a sensing layer as that term is used in claim 1. Instead, the thin film sample 90 is the material to be sensed, or in the vernacular of applicant's patent application, the substance to be detected. It is further clear that the intent of

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Mansky's sensor system is to investigate the heat capacity of materials, namely polymers, while the instant claimed invention is directed to measuring the effect of a gas being absorbed onto a sensing material. Since Mansky fails to teach each and every element of the invention recited, applicant submits that claims 1-8, 10-14, 17-22, 24 and 25 should be held patentable over this reference.

Claims 9 and 23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Mansky. Applicant respectfully traverses the rejection.

Claims 9 and 23 depend from claim 1. For at least the reasons provided above, applicant submits that Mansky fails to teach each and every element of the recited invention. Specifically, Mansky fails to teach or suggest "a sensing layer disposed directly or indirectly adjacent to the thin film membrane."

Claim 15 stands rejected under 35 U.S.C. § 103 as being unpatentable over Mansky in view of Routkevitch. Applicant respectfully traverses the rejection.

Claim 15 depends from claim 1, and the arguments posed above regarding claim 1 patentability over Mansky are equally applicable to this rejection. Routkevitch is relied upon in the Office action as teaching the use of nanotubes as sensor elements in a sensor array system. Routkevitch provides no meaningful teaching or suggestion regarding "a sensing layer disposed directly or indirectly adjacent to the thin film membrane." Thus, applicant respectfully submits that claim 15 is patentable over these cited references.

Claim 16 stands rejected under 35 U.S.C. § 103 as being unpatentable over Mansky in view of Zanini-Fisher. Applicant respectfully traverses the rejection.

Claim 16 depends from claim 1, and the arguments posed above regarding claim 1 patentability over Mansky are equally applicable to this rejection. Zanini-Fisher is relied upon in the Office action as teaching the use of aluminosilicates as sensor elements in a sensor array system. Zanini-Fisher provides no meaningful teaching or suggestion regarding "a sensing layer disposed directly or indirectly adjacent to the thin film membrane." Thus, applicant respectfully submits that claim 16 is patentable over these cited references.

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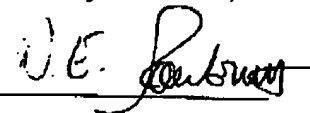
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Claim 26 stands rejected under 35 U.S.C. § 103 as being unpatentable over Mansky in view of DiMeo. Applicant respectfully traverses the rejection.

Claim 26 depends from claim 1, and the arguments posed above regarding claim 1 patentability over Mansky are equally applicable to this rejection. DiMeo is relied upon in the Office action as teaching the use of dry air for calibrating and flushing a sensor array system. DiMeo provides no meaningful teaching or suggestion regarding "a sensing layer disposed directly or indirectly adjacent to the thin film membrane." Thus, applicant respectfully submits that claim 26 is patentable over these cited references.

For at least the aforementioned reasons, applicant respectfully requests withdrawal of the outstanding rejections and allowance of claims 1-26. Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,

By 

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